

ABSTRACT

[0062] . Articles produced from hydrophobic polymers (e.g., polyethylene) are surface-coated with thin films of starch in order to render the surfaces hydrophilic. The thin coatings form on the surfaces of plastic objects when the objects are placed in contact with hot, aqueous solutions of starch. These starch coatings are adherent to the hydrophobic plastic surfaces under both wet and dry conditions, and they permit the surfaces to be uniformly wet with water. The coatings may be rendered even more adherent when wet by graft polymerizing the starch with a synthetic monomer. Resultant products have the potential for improved biocompatibility, improved compatibility with hydrophilic reagents, reduced build-up of electrostatic charge, reduced blocking, reduced friction, improved absorption of water-based dyes, and improved adhesion properties. The starch coatings are non-toxic, inexpensive and biodegradable.